

CLAIMES

1. A method of removing phosphoric acid contained in wastewater, which comprises inclusively fixing calcium or a compound thereof in a polymeric solid, and bringing the same with wastewater to form calcium apatite by reaction between phosphoric acid in wastewater and calcium.

2. A method of removing phosphoric acid contained in wastewater, which comprises inclusively fixing calcium or a compound thereof and magnetite in a polymeric solid, and bringing the same with wastewater to form calcium apatite by reaction between phosphoric acid in wastewater and calcium.

3. A method of removing phosphoric acid contained in wastewater as defined in claim 1 or 2, wherein the calcium compound is at least one member from calcium hydroxide, inorganic acid salt of calcium and organic carboxylic acid salt of calcium.

4. A method of removing phosphoric acid contained in wastewater as defined in any one of claims 1 to 3, wherein the polymeric solid is at least one member from polyvinyl alcohol, partially esterified polyvinyl alcohol, polyacrylic acid, partially esterified polyacrylic acid, starch, partially acetylated starch, polysaccharides and partially esterified polysaccharides.

5. A method of removing phosphoric acid contained in wastewater as defined in claim 4, wherein the polymeric solid is a gelled polyvinyl alcohol or a partial esterification product thereof.

6. A method of removing phosphoric acid contained in wastewater as defined in any one of claim 1 to 5, wherein the polymeric solid has a multi-layered structure.

7. A method of removing phosphoric acid contained in wastewater as defined in claim 6, wherein the polymeric solid is formed with a coating layer of calcium alginate.

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8. A method as defined in any one of claims 1 to 7, wherein the polymeric solid containing calcium or the compound thereof is mechanically vibrated to control surface deposition of calcium phosphate and diffusion of calcium.

9. A method as defined in any one of claims 2 to 7, wherein the polymeric solid containing calcium or the compound thereof and magnetite is mechanically or electromagnetically vibrated to control surface deposition of calcium phosphate and diffusion of calcium.

10. A method as defined in any one of claims 1 to 9, wherein formed calcium apatite is recovered in running water.

11. An inclusion immobilizing support for removing phosphoric acid in wastewater wherein calcium or a compound thereof is supported on a polymeric solid.

12. A support as defined in claim 11 wherein the magnetite is contained in the polymeric solid.

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